

Remarks/Arguments

Rejection of Claims 1-4, 7, 13-16, and 19 under 35 U.S.C. §103(a)

The Examiner rejected Claims 1-4, 7, 13-16, and 19 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 3,522,486 (Johns et al.) in view of US Patent No. 4,288,839 (Prager et al.).

Claim 1

Johns does not teach a potted housing

Claim 1 recites a potted housing. A potted housing is a housing that has been filled with potting material. For example, paragraph [0020] of the present application teaches that potting a housing includes filling the housing with a potting material to surround components in the housing. This is the commonly understood meaning of potting a housing in the art. The Examiner has cited housing portion 41 of Johns as a potted housing. However, housing 41 has not been filled with potting material. Instead, potting material 43 is only used to separate modules 31. Figures 2A and 2B clearly show that there is unfilled space in the housing surrounding the modules and the potting material between the modules. Further, Johns teaches that modules are potted by surrounding circuit boards with material – no mention is made of potting the housing itself. (col.2, lines 37-41). Although it is unnecessary given the clear teachings of the written description and the commonly understood meaning of a potted housing, Claim 1 has been amended to recite: “wherein said housing is filled with potting material.”

Johns does not teach a bracket providing support

Claim 1 recites: “a bracket mounted to an interior surface of said housing;” and “said heat-containing element is maintained in a fixed position within said housing by said bracket prior to said filling with said potting material.” The Examiner has cited element 44 of Johns as the bracket recited in Claim 1. The Merriam-Webster Dictionary defines a bracket as: “a projecting framework or arm *designed to support weight*.” (emphasis added). This function is clearly shown in the figures for the present invention. For example, Figures 1-5 all show the

bracket as supporting a heat-producing element in free space. Further, Claim 1 has been amended to explicitly recite a support function.

However, element 44 is a flexible aluminum shim. Shims do not provide free-standing support. The Merriam-Webster Dictionary defines a shim as: “a thin, often tapered, piece of wood, metal, or stone used to fill in.” Johns teaches that the shims are inserted between potted modules to act as heat conductors. It is clear that a thin aluminum shim cannot provide free-standing support and Johns does not teach that shim 44 provides any structure function.

Johns does not teach a bracket acting as a heat sink

Claim 1 has been amended to recite: “said bracket is arranged to act as a second heat sink for said heat-containing element” Assuming that shim 44 is otherwise analogous to the bracket recited in Claim 1, which it is not, shim 44 does not act as a heat sink. Johns teaches that shim 44 is a heat conductor. That is, the shim does not absorb and hold heat as does a heat sink. Instead, the shim conducts heat to another element that will absorb or dissipate the heat.

Modifying Johns to use a screw would render Johns unsatisfactory

Claim 1 recites: “a self-tapping screw threaded into said bracket;” The Examiner has stated that Prager suggests or motivates modifying the primary reference, Johns, to use a screw as recited in Claim 1. However, it is clear that any type of screw would be utterly incompatible with shims 44, which the Examiner has equated to the bracket recited in Claim 1. Shims are very thin and not designed or intended to be fastening blocks. Further, screws are clearly incompatible with the modules and components shown in Johns. “If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).” As quoted in MPEP 2143.01.

For all the reasons above, Johns and Prager fail to teach, suggest, or motivate the elements of Claim 1. Therefore, Claim 1 is patentable over Johns and Prager. Claims 2-4 and 7, dependent from Claim 1, enjoy the same distinction with respect to Johns and Prager.

Claim 12

Claim 12 recites the elements of Claim 1 discussed above. Therefore the arguments regarding Claim 1 are applicable to Claim 12 and Claim 12 is patentable over Johns and Prager.

Claim 13

Claim 13 is a method claim paralleling Claim 1. Therefore the arguments regarding Claim 1 are applicable to Claim 13 and Claim 13 is patentable over Johns and Prager. Claims 14-16 and 19, dependent from Claim 13, enjoy the same distinction with respect to Johns and Prager.

Applicant courteously requests that the rejection be removed.

Rejection of Claims 5 and 17 under 35 U.S.C. §103(a)

The Examiner rejected Claims 5 and 17 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 3,522,486 (Johns et al.) in view of US Patent No. 4,288,839 (Prager et al.) as applied to the above claims further in view of US Patent No. 4,502,090 (Sloan).

Applicants have shown that Claim 1 is patentable over Johns and Prager. Sloan teaches a protective control system and does not cure the defects of Johns and Prager regarding a potted housing, bracket, or self-tapping screw. Therefore, Claim 1 is patentable over Johns, Prager, and Sloan. Claim 5, dependent from Claim 1, enjoys the same distinction with respect to the cited references.

Applicants have shown that Claim 13 is patentable over Johns and Prager. Sloan teaches a protective control system and does not cure the defects of Johns and Prager regarding a potted housing, bracket, or self-tapping screw. Therefore, Claim 13 is patentable over Johns, Prager, and Sloan. Claim 17, dependent from Claim 13, enjoys the same distinction with respect to the cited references.

Applicant courteously requests that the rejection be removed.

Rejection of Claims 6, 8-11, and 18 under 35 U.S.C. §103(a)

The Examiner rejected Claims 6, 8-11, and 18 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 3,522,486 (Johns et al.) in view of US Patent No. 4,288,839 (Prager et al.) and further in view of US Patent No. 6,618,255 (Fairchild).

Applicants have shown that Claim 1 is patentable over Johns and Prager. Fairchild teaches a fastening system and does not cure the defects of Johns and Prager regarding a potted housing, bracket, or self-tapping screw. Therefore, Claim 1 is patentable over Johns, Prager, and Fairchild. Claim 6, dependent from Claim 1, enjoys the same distinction with respect to the cited references.

Claim 8 recites the elements of Claim 1 discussed above regarding Johns and Prager. Therefore the arguments regarding Claim 1 are applicable to Claim 8 and Claim 8 is patentable over Johns and Prager. Fairchild teaches a fastening system and does not cure the defects of Johns and Prager regarding a potted housing, bracket, or self-tapping screw. Therefore, Claim 8 is patentable over Johns, Prager, and Fairchild. Claims 9-11, dependent from Claim 8, enjoy the same distinction with respect to the cited references.

Claim 13 is a method claim paralleling Claim 1. Therefore the arguments regarding Claim 1 and Johns and Prager are applicable to Claim 13 and Claim 13 is patentable over Johns and Prager. Fairchild teaches a fastening system and does not cure the defects of Johns and Prager regarding a potted housing, bracket, or self-tapping screw. Therefore, Claim 13 is patentable over Johns, Prager, and Fairchild. Claim 18, dependent from Claim 13, enjoys the same distinction with respect to the cited references.

Applicant courteously requests that the rejection be removed.

Rejection of Claims 12 and 20 under 35 U.S.C. §103(a)

The Examiner rejected Claims 12 and 20 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 3,522,486 (Johns et al.) in view of US Patent No. 4,288,839 (Prager et al.) further in view of US Patent No. 6,618,255 (Fairchild) and further in view of US Patent No. 5,504,653 (Murphy et al.).

Claim 12 recites the elements of Claim 1 discussed above regarding Johns, Prager, and Fairchild. Therefore the arguments regarding Claim 1 are applicable to Claim 12 and Claim 12 is patentable over Johns, Prager, and Fairchild. Murphy teaches a heat sink assembly and does not cure the defects of Johns, Prager, and Fairchild regarding a potted housing, bracket, or self-tapping screw. Therefore, Claim 12 is patentable over Johns, Prager, Fairchild, and Murphy.

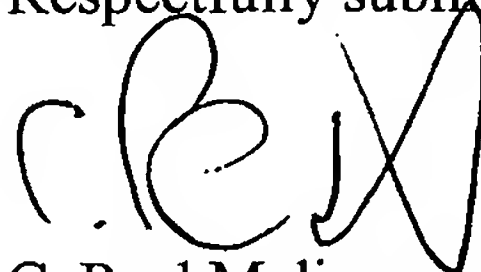
Claim 20 is a method claim paralleling the elements of Claim 1 discussed above regarding Johns, Prager, and Fairchild. Therefore the arguments regarding Claim 1 are applicable to Claim 20 and Claim 20 is patentable over Johns, Prager, and Fairchild. Murphy teaches a heat sink assembly and does not cure the defects of Johns, Prager, and Fairchild regarding a potted housing, bracket, or self-tapping screw. Therefore, Claim 20 is patentable over Johns, Prager, Fairchild, and Murphy.

Applicant courteously requests that the rejection be removed.

Conclusion

Applicant respectfully submits that all pending claims are now in condition for allowance, which action is courteously requested.

Respectfully submitted,



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